

	<p style="text-align: center;"> <b>Aeronautical Services</b>  <b>Advisory Memorandum</b>  <b>(ASAM)</b>  <b>Focal Point: ANSP</b> </p>	<p style="text-align: center;"> <b>ASAM</b>  <b>No: 032</b>  <b>Issue 6</b>  <b>Date 09.01.15</b> </p>
<p><b>Title</b></p>	<p><b>Guidance on the exposition requirements for training organisations seeking approval to provide training to air traffic controllers: and</b></p> <p><b>General guidance in areas such as: training course approvals; assessments; record keeping; appeals; conduct of courses and the use of simulators.</b></p>	

## 1. Introduction

In order to obtain certification to conduct air traffic controller (ATCO) training, a training organisation must provide, in addition to an application, an exposition with supporting documentation.

### 1.1. Scope

The Safety Regulation Division (SRD) of the Irish Aviation Authority (IAA) is the Competent Authority (CA) for Ireland with regard to Commission regulations (EC) No 216/2008, as amended, and (EU) 805/2011.

This guidance applies to all organisations or ANS providers located in Ireland seeking to be involved in the training of student ATCOs and ATCOs.

### 1.2. Responsible Person

The Assistant Director, Aeronautical Services Department (ASD) of SRD has overall responsibility for this guidance material.

## 2. References

- Regulation (EU) No 805/2011;
- Regulation (EC) No 216/2008 as amended;
- Regulation (EC) No 549/2004 as amended;
- ICAO Annex 1
- S Notice No. 27
- ASD.F.214
- ASD application form ASD.F.320 / ASD.F.207B
- EUROCONTROL Specification for the ATCO Common Core Content Initial Training (EUROCONTROL-SPEC-0113)
- ASD.F.216 and ASD.F.217 (*UTP and UCS compliance tracking sheets*)

### **3. Submission requirements**

Where an ANSP has been providing unit training prior to the introduction of Commission regulation (EU) No 805/2011 under CA approved Unit Training Plans (UTP) and Unit Competence Schemes (UCS) and was and remains subject to CA safety oversight audit, then these organisations are not required to submit a new training exposition. When applying to renew their SES certificate they may submit an application form to be certified whereby the type of training and the type of air navigation service provided shall be certified as a package of services (ASD application form ASD.F.320 refers). They will notify any change regarding training under normal organisational change processes or at the time of SES certification renewal if appropriate.

Where an ANSP has been providing unit training under SES certification prior to the introduction of Commission regulation (EU) No 805/2011 and were using Unit Training Plans and Unit Competence Schemes approved by the CA and were and remain subject to CA safety oversight audit, then these organisations are not required to submit an initial exposition. When applying to renew their SES certificate they may submit an application form to be certified whereby the type of training and the type of air navigation service provided shall be certified as a package of services. They will notify any change at the time of SES application renewal or under normal organisational change processes. An exposition by the ANSP training organisation as per ASD.F.214 shall accompany the renewal application and should contain information as to how the ANSP TO remains compliant with the regulatory requirements.

Where an organisation has not provided training prior to the introduction of Commission regulation (EU) No 805 of 2011 or is seeking initial SES certification, then in both instances they will submit an exposition as part of their application in accordance with S Notice No 27 and this ASAM.

### **4. Application**

The applicant shall submit the following;

- 1) An application (form ASD.F.320 or ASD.F.207B)
- 2) An exposition (2 documents)
  - a. A small MS word or PDF document drafted by the applicant to include the details as outlined at paragraph 5.1.
  - b. A spreadsheet as per ASD.F.214 to be filled in by the applicant with pertinent explanatory information as outlined at 5.2.
- 3) Documents such as procedures manuals; management systems manuals (e.g. Quality/Business etc.); UTP document; UCS document; certificates of training/competencies/experience of instructors; insurance and liability certs etc. and any other material to support the application.

## 5. Exposition

An exposition details how an organisations facilities, equipment, accommodation, staffing, assessment processes, quality management system, financial strength and insurance cover etc. enable it to provide ATC training to professional standards and in compliance with European, ICAO and national requirements.

The following paragraphs give information to assist the applicant in filling out the two part exposition.

### 5.1 General Administration, organisational chart and statement of regulatory compliance

#### Page 1

- Name of training Organisation ;
- Title of exposition;
- Version number; and
- Date of document.

#### Page 2 - Administrative information

- Name and address of the ATC training organisation and, if different, name and address of the training centre to which this application refers;
- Names, telephone and email addresses of the following:
  - Accountable manager;
  - Head of the training organisation;
  - Person nominated by the training organisation as the focal point for communication with the CA;
- An organisation chart outlining information of how staff will be organised.

#### Page 3 –Regulatory Compliance Statement

The exposition shall contain a statement, signed by the accountable manager, confirming that the training organisation exposition defines the training organisation's compliance with the extant regulatory requirements and that it will be complied with at all times. The statement will include references to the applicable regulatory requirements.

### 5.2 Explanatory information to assist in tracking compliance for those areas of training where approval is sought (spreadsheet as per ASD.F.214).

The training organisation will track and document how it complies with the essential requirements of Commission Regulation (EC) No 216/2008 (as amended by Regulation (EC) No 1108/2009) and specifically the requirements for training

organisations as contained in '**Chapter IV Requirements for Training Organisations**' of '*Commission Regulation (EU) No 805 of 10 August 2011 laying down detailed rules for ATCOs' licences and certain certificates pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council*'.

In addition, for those areas that the organisation requires to conduct training (Initial; Unit etc.), it will show by documented evidence how it complies with the '**Training Requirements**' of Annex II (Parts A, B and /or C) of Commission regulation (EU) No 805 of 2011

Where references within the exposition are made to manuals or documents the section and page number should be included. Any manuals or documents that are referenced should be forwarded (in soft copy) as supporting evidence with the exposition. A non-exhaustive list of documents and manuals are listed as examples of what should be submitted, some of which can be combined under one document;

- Management systems
- Procedures Manual
- Operations Manual
- Safety manual
- Organisation responsibilities
- Quality Management System
- UTP
- UCS
- Assessment and examination procedures
- Record keeping
- Capacity to review and adopt new regulations or changes to existing regulations
- Staff training requirements
- Maintenance of staff competence
- Functions
- Record keeping
- Confidentiality
- Security management
- Liaison with CA
- Safety management
- Facilities
- Equipment procurement and maintenance...

The following appendix outlines information that is considered useful to an organisation seeking initial certification and also seeking individual ATC training course approval. It provides guidance in areas such as approvals; assessments; record keeping; appeals; conduct of courses; the use of simulators; etc.

- Part A APPROVAL OF ATC TRAINING ORGANISATION
- Part B MAINTENANCE of APPROVAL OF ATC TRAINING ORGANISATION
- Part C APPROVAL of INITIAL ATC TRAINING COURSES
- Part D APPROVAL of UNIT TRAINING
- Part E: APPROVAL of CONTINUATION TRAINING
- Part F: APPROVAL of DEVELOPMENT TRAINING
- Part G: CONDUCT of COURSES
- Part H: ASSESSMENTS
- Part I: APPEALS
- Part J: RECORDS
- Part K: ASSESSMENT for PREVIOUS COMPETENCE
- Part L: CRITERIA for USE of SIMULATORS in ATC TRAINING

## **Part A - APPROVAL OF ATC TRAINING ORGANISATION**

### **General**

The ATC training organisation seeking approval will submit information on its organisational structure supported by an organisation chart, including all the management, instructional and support staff and will document individual detailed responsibilities and accountabilities.

The ATC training organisation will be required to nominate an individual (the accountable manager) who has overall corporate authority for ensuring that all training commitments can be carried out to the standards required by European regulation and the CA.

The ATC training organisation will nominate a person to be the focal point for communication with the CA.

The ATC training organisation must demonstrate that it has sufficient competent staff to plan and carry out theoretical and practical training and associated assessments in accordance with the approval.

The ATC training organisation will demonstrate how courses for ATC training will be administered.

The ATC training organisation will have an internal procedure by which students may appeal against the conduct of an assessment.

### **Facilities, Equipment and Accommodation**

The ATC training organisation will provide adequate classroom, simulator, office and rest accommodation in order to satisfactorily carry out and support all planned training courses.

- Classroom accommodation – a list of classrooms, showing the number of trainees that can be accommodated in each, stating whether or not they are dedicated to ATC training or shared with other training activities within the organisation;
- Specialised practical facilities – the numbers and type of ATC simulators, their function and number of trainees that can be trained at any one time; Simulators will be subject to approval according to the criteria published in Part L.
- Private study facilities – facilities provided for private study including any computer based private study aids;
- Staff facilities – the number of staff offices and the number of staff accommodated in each.
- Library – details of library facilities with an indication of the range of relevant subjects covered and periodicals available;
- Storage facilities for training and assessment records – the storage environment must be such that documents remain in good condition. If documents are held in electronic format, the training organisation will demonstrate that it has adequate provisions in place to ensure the security and safety of such documents.

## **Staff Information**

The instructional and assessment staff will meet the selection requirements, described by the ATC training organisation. The ATC training organisation will have procedures by which staff involved in training may achieve, maintain and, if appropriate, regain competence. As appropriate, the procedures will also specify the training requirements for classroom and simulator training and for assessment duties. The processes by which such training will be assessed will be described.

The selection criteria, training and assessment procedures for all staff will be documented and submitted to the CA for approval (Art.22 EU Reg. 805/11 refers).

- Instructors will have the adequate competence in the subject matter in which he/she is instructing. The instructors will have completed a recognised instructors' training course and have been assessed as competent in classroom instructions and, if appropriate, practical instructional techniques.
- Simulator input staff or pseudo pilots will have successfully completed an approved training course and will have been assessed as competent.
- ATC simulator instructional staff will have or have had operational competence at an ATC unit exercising the privileges of the rating which relates to the approved course on which he/she will be instructing and have completed a recognised ATC simulator instructors' training course and been assessed as competent in practical instructional techniques as appropriate.
- Assessors and examiners will have the adequate competence in the subject matter in which he/she is assessing/examining and will have a satisfactory knowledge of the relevant course structure and objectives and the methods of assessment used. Assessors and examiners are authorised to do so as part of the training organisation approval process and will be listed in the training organisation's documentation. Changes on this list will be notified to the CA and are subject to prior CA approval.

The ATC training organisation will submit training staff details (both instructional and technical staff) as follows:

- Name and forename;
- Professional qualifications and experience;
- Training and assessment records in relation to instruction duties;
- Employment status (permanent or under contract);

## **Quality Management System**

The ATC training organisation will operate and maintain a Quality Management System (QMS), incorporating processes by which it will manage, develop, deliver and maintain ATC training in accordance with the requirements prescribed in the Commission Reg (EU) No 805 of 2011 for Licensing of ATCOs and the requirements of this document.

The QMS will be a process based system and will specify the ATC training organisations' processes with respect to its management structure, course design and conduct, the assessment scheme and the competence of instructional and assessment staff.

The QMS will include procedures requiring an on-going and documented update of the training courses in accordance with relevant standards and regulatory requirements.

The system will also provide procedures which require a well-defined periodical and documented review of staff responsibilities and qualifications, training courses and assessment methods.

Courses should be regularly reviewed to ensure that the training they provide meets also the requirements of the operational ATC units.

This may be achieved by:

- monitoring the progress of student and/or trainee ATCOs undertaking OJT to identify additional skills or knowledge required;
- subjecting the courses to review by operational personnel;
- requiring instructional staff to maintain valid ratings or undertake operational familiarisation;
- auditing by a CA

The changes made to ATC training courses as a result of reviews should be documented stating the changes made and the reasons for making them.

Formal interfaces, including maintenance contracts of the specialised practical facilities, will be included within the scope of this periodical review mechanism.

The QMS will include a requirement for an independent audit by an external organisation to monitor training standards, the integrity of theory and practical assessments and compliance with and adequacy of procedures. The management of the quality system must include feedback of the independent audit findings to the accountable manager to ensure, as necessary, corrective action.

An EN ISO 9001 certificate, issued by an appropriately accredited organisation, covering as a minimum the services of the training provider and the requirements of the Commission Reg. (EU) No 805 of 2011 for Licensing of ATCOs will be considered as a sufficient means of compliance.

### **Contracted activities**

A training organisation which is not an Air Traffic Services (ATS) provider may provide non OJT elements of unit, refresher and conversion training if it is certified to do so and has a specific arrangement with an ATS provider to carry out training on its behalf (ASAM No 33 refers). The ATS provider is responsible for the course content and it shall ensure that the training is conducted in compliance with its certificate of approval.

### **Financial Strength and Insurance Cover**

A training organisation will demonstrate that it has sufficient funding available to conduct the training according to the standards defined in the Commission Reg. (EU) No 805 of 2011 and the requirements and objectives of the ATC training courses of the concerned ATC training organisation.

The ATC training organisation will have in place arrangements to have sufficient insurance cover in accordance with the nature of the training provided.



## **Part B: Maintenance of Approval of Training Organisation Certification**

### **Rationale**

The objective of this chapter is to set out the requirements for the maintenance of approval of ATC training. (S Notice No. 27 refers)

### **General**

Modifications to courses and lesson plans due to changes in legislation, standards, the Manual of Air Traffic Services, or similar documents, are considered unavoidable. ATC training organisations will have processes in place by which they maintain and review ATC training courses to ensure that the training they provide meets the requirements of operational ATC units. Changes made as a result of these processes will be documented, together with the reasons for making them.

Where changes are made to a course syllabus an impact assessment will be carried out, documented and any necessary actions carried out as soon as practicable. This assessment should also consider the impact on previous courses and any follow up required with the ANSPs.

Major changes, of a nature as listed below, need to be notified in due time to the CA and require a prior approval before being implemented.

### **Changes requiring prior approval**

Following changes will be notified and require prior approval before implementation:

Changes having an impact on:

- The APPROVAL OF ATC TRAINING ORGANISATION
- The APPROVAL of INITIAL ATC TRAINING COURSES
- The APPROVAL of UNIT TRAINING
- The APPROVAL of CONTINUATION TRAINING
- The APPROVAL of DEVELOPMENT TRAINING
- The ASSESSMENTS
- The ASSESSMENT METHOD for PREVIOUS COMPETENCE
- The USE of SIMULATORS in ATC TRAINING

More detailed information is documented in the appropriate chapters.

### **Training Oversight Activities**

The certification procedure for Training Organisation is contained in article 27 of Commission Reg. (EU) No 805 of 2011.

In accordance with article 28 of Commission Reg. (EU) No 805 of 2011, ATC training organisations will be subject to an audit conducted by the CA 'on a regular basis'.

For ongoing oversight purposes, specifically focused audits will take place, as required, in the case of changes to the training organisation structure or QMS processes, the training centre facilities and equipment, course design documents or assessment processes.

As required, the CA will carry out audits and random inspections to verify continuous compliance with the regulatory requirements and any terms and conditions under which approval was granted.

The CA may randomly attend assessments of students or trainees in order to verify the compliance to assessment procedures and standards.

An ATC training organisations certificate may be suspended or withdrawn by the Director of SRD (or his nominated representative) if it is found that the regulatory requirements or any terms and conditions under which certification was granted are not being satisfied.

The suspension or withdrawal will be lifted when corrective actions have been implemented and are at the discretion of the Director of SRD.

## **Part C: Approval of Initial Training**

### **Rationale**

The objective of this chapter is to set out the requirements for approval of initial ATC training courses in accordance with the appropriate articles of Commission Reg. (EU) No 805 of 2011 and specifically Annex II '**Training Requirements**' Part A of that regulation.

### **General**

Initial training courses must provide student ATCOs with the necessary skills and knowledge to a level of competence that will prepare them for training at operational units.

The approved ATC training organisation will only provide training courses which are approved or at least provisionally approved by the CA.

The ATC training organisation seeking for approval of initial ATC training courses will provide to the CA all the relevant evidence to demonstrate compliance with the requirements of the Commission Reg. (EU) No 805 of 2011 and the requirements of this document.

The approved ATC training organisation must notify the CA of any proposed changes to the approved initial ATC training course that affect the approval before any such change takes place, to enable the CA to determine continued compliance with the requirements of the Commission Reg. (EU) No 805 of 2011 and the requirements of this document.

### **Course Requirements**

The initial training course has to fulfil the following criteria:

- Compliance with the appropriate articles of Commission Reg. (EU) No 805 of 2011 and specifically Annex II Part A of that regulation and the requirements of this document
- The course, the methodology and duration that enables students to reach performance objectives
- Details of the content (list subjects with their objectives and learning taxonomy using as a guide the structure found in the paragraph titled 'Syllabi structure' (pg 17-21 incl) and the use of action verbs from appendix 1 which are both taken from the Eurocontrol Specification for the ATCO Common Core Content Initial training doc
- Training Plans, prerequisites, objectives, assessment plan, and lesson objectives
- Adequacy of training equipment for the proposed course of training
- Adequacy of assessment methods in order to ensure that the performance objectives are met
- Availability of appropriate processes to ensure that the course meets regulatory requirements
- Maintenance of records of all changes made to the course, either on a temporary or permanent basis, and the reasons for making them.

## **Course Details**

The ATC training organisation seeking approval of initial ATC training courses will submit the following information:

- Title of the initial training course
- Document Identification, Signatures, Document Change Records
- Identity of the ATC training organisation approving authority
- Table of Contents
- Evidence that the course is compliant with the course requirements
- Statement, signed by the accountable manager, confirming that the course is compliant with the course requirements
- Objectives of the training course
- Proposed starting date of first course
- Duration of the course
- Number of courses planned per annum
- Required minimum profile of the students
- Planned minimum and maximum number of students on the course
- Performance objectives of the course
- Timetable of lessons and practical exercises for the course, including details of any self-study arrangements
- Outline lesson plans showing the sub-topic to which the lesson relates
- Details of the practical simulation exercises showing how they increase in complexity and traffic loading through the course and the topics to which the exercises relate
- Assessment method by which the students' progress and ultimate success will be judged
- Methods used to evaluate, review and maintain the quality and effectiveness of the course
- Staffing details
  - Competence level of the instructors and topics in the course to which the instructor will contribute, showing whether directed towards theoretical or practical training or a mixture of both
  - Responsibilities in respect of the course

## **Part D: Approval of Unit Training**

### **Rationale**

The objective of this chapter is to set out the requirements for approval of unit ATC training courses in accordance with the appropriate articles of Commission Reg (EU) No 805 of 2011 and specifically Annex II '**Training Requirements**' Part B of that regulation.

### **General**

Unit training courses must provide student or trainee ATCOs with the necessary skills and knowledge to a level of competence that enables them to provide Air Traffic Control service at a particular unit.

Because all operational ATC units are different, student ATCOs will require specific unit training, meaning that every air traffic control unit must have a unit training plan.

Unit training will be divided into three phases:

- **Transitional training** "The stage following Initial Training during which site-specific theoretical knowledge and understanding will be transferred to the trainee using a variety of methods and during which skills will be developed through the use of site-specific simulations"
- **Pre on-the-job training** "The phase of locally based training during which extensive use of simulation, using site-specific facilities, will enhance the development of previously acquired routines and abilities to an exceptionally high level of achievement"
- **On-the-job training** "The integration in practice of previously acquired job-related routines and skills under the supervision of a qualified On-the-Job-Training instructor in a live traffic situation"

The approved ATC training organisation will only provide unit training courses which are approved or at least provisionally approved by the CA.

The ATC training organisation seeking approval of unit ATC training courses will provide to the CA all the relevant evidence to demonstrate compliance with the requirements of the Commission Reg (EU) No 805 of 2011 and specifically Annex II '**Training Requirements**' Part B of that regulation and the requirements of this document.

The approved ATC training organisation must notify the CA of any proposed changes to the approved unit training that affect the approval before any such change takes place. This enables the CA to determine continued compliance with the requirements of Commission Reg (EU) No 805 of 2011 and the requirements of this document.

## **Unit Training Requirements**

The unit training has to fulfil the following criteria:

- Compliance with the appropriate articles of Commission Reg (EU) No 805 of 2011 and Annex II part B in particular.
- The unit training will be conducted in accordance with a fully documented and up-to-date Unit Training Plan (UTP) indicating:
  - The objectives of the training phases;
  - The training processes by which the objectives will be met;
  - The methodology and duration enabling students to reach performance objectives;
  - The minimum training time and the maximum time in which student ATCOs are expected to achieve the objectives of the training;
  - The assessment process by which progress will be assessed;
  - The process by which successful completion of unit training is to be assessed, including the condition that a student / trainee must demonstrate that he has met the objectives for each phase of training before being allowed to commence the next phase;
  - Adequacy of assessment methods in order to ensure that the performance objectives are met;
  - Procedures for candidates who fail to meet the training criteria, including an internal appeal procedure;
  - The roles and responsibilities of those involved with unit training;
  - Maintenance of records of all changes made to the course, either on a temporary or permanent basis, and the reasons for making them.

The Unit Training Plan will be subject to the quality control system that monitors the processes, and the roles and responsibilities of those involved.

The Unit Training Plan must be regularly reviewed to ensure that the training continues to satisfy the objective of producing valid controllers.

The progress of students/trainees undertaking OJT will be monitored and recently validated controllers and OJTIs should be asked to identify any additional skills or knowledge that should be taught prior to or during OJT.

The Unit Training Plan will be submitted with ASD.F.216 '*ANSP UTP compliance tracking sheet*' for approval to the CA.

### **Unit Training Plan details**

The Unit Training Plan will be documented and will contain at least the following items:

- Title of the UTP
- Document Identification, Signatures, Document Change Records
- Identity of the UTP approving authority
- Table of Contents
- Introduction

- Objectives and scope of the UTP
- Maintenance of records of all changes made to the UTP, either on a temporary or permanent basis, and the reasons for making them.
- Relationship with other plans, schemes or documents
- Definitions
- General Provisions
- Overall accountable manager for the unit training
- Structure of the unit training in terms of transitional training, pre-OJT and OJT and the time periods allocated to each phase of training
- Audience (who will use the unit training plan)
- Planned maximum number of students or trainees in unit training
- Final output of the unit training
- Review Mechanism (Methods used to evaluate, review and maintain the quality and effectiveness of the unit training plan)
- Staffing details (Roles and responsibilities of persons who are involved with unit training), i.e.
  - Head of operational unit
  - Head of Training
  - Training supervisor
  - OJTI
  - Classroom instructor
  - Exercise design staff
  - Training progress assessors
  - Assessors for final assessment
- Details of the transitional training
  - The objectives of the training
  - The training timetable
  - The objectives of each classroom lesson and the methods used for training, e.g. classroom lessons, guided self-study, CBT and simulations
  - Site specific emergency training will be included in the training program (i.e. Training in Degraded Systems, Unusual Circumstances and Aircraft Emergencies)
  - The assessment programme
- Details of the pre-OJT
  - The objectives of the training
  - The training timetable
  - The objectives of each classroom lesson and the methods used for training, e.g. classroom lessons, guided self-study, CBT and simulations
  - Site specific emergency training will be included in the training program (i.e. Training in Degraded Systems, Unusual Circumstances and Aircraft Emergencies)
  - The assessment programme
- Details of the OJT
  - The objectives for each topic and where appropriate sub-topic for each of the assessments to be conducted; if the objectives may be met with the support of the OJTI this should be indicated
  - The training timetable, giving the minimum and maximum times to complete this phase of training

- The conditions e.g. the traffic levels (low, medium or high), at which the objectives will be assessed
- Site specific emergency training will be included in the training program (i.e. Training in Degraded Systems, Unusual Circumstances and Aircraft Emergencies)
- The time periods at which assessments are to be conducted
- Assessment details
  - Assessments for each of the three training phases
  - Occasions upon which trainees will be assessed
  - Methods by which the student's progress and ultimate success will be judged
  - Objectives to be met for the particular assessments
  - Pass or fail scenarios
  - Templates or forms to be used
  - Post assessment reporting scheme (CA inclusive)
  - Process to be followed when a trainee is shown to be making less than satisfactory progress, particularly in respect of remedial training
  - Procedures for candidates who fail to meet the training criteria, including an internal appeal procedure to ensure fair treatment of candidates;
  - Procedures for candidates who following an internal appeal wish to make a further appeal to the competent authority.
- Training Records (Training hours at each specific working position, training reports and assessment results)
  - Occasions when records will be made
  - Responsible for archiving training records
  - Place and the duration where training records will be stored
  - Access control and security in place to ensure confidentiality

**Note** - When individual course approvals are given, the course can be added as an appendix to the Unit UTP/UCS with its individual course approval letter attached. When the Unit resubmits its UTP/UCS for approval the course can be approved under the new UTP/UCS approval letter.



## **Part E: Approval of Continuation Training**

### **Rationale**

The objective of this chapter is to set out the requirements for approval of a Unit Competence Scheme (UCS) in accordance with the appropriate articles of Commission Regulation (EU) No 805 of 2011 and specifically Annex II '**Training Requirements**' Part C of that regulation.

### **General**

Although the ATC licence is issued for the lifetime of a controller, he/she may not exercise its privileges unless it contains: a valid rating, its associated endorsements, a valid language proficiency endorsement and a current medical certificate.

Following the initial issue of a valid rating, a controller will be required to demonstrate continued competence to exercise the privileges of that rating by annual renewal of the unit licence endorsement. "Competence" means the appropriate knowledge, skills and experience to provide the valid air traffic control services stated in an air traffic controller's licence.

The continuation training ensures that ATCOs keep their competence and that the unit endorsements, stated on the ATCO licence, remain valid.

The Unit Competence Scheme (UCS) is the approved method by which the competence of ATCOs is measured and maintained and should consist of a scheme based on operational experience, refresher training, emergency training and competence checking.

Because all operational ATC units are different, every air traffic control unit must have a dedicated CA approved Unit Competence Scheme.

Controllers will complete the appropriate Unit Competence Scheme (UCS) as laid down and the competence of each air traffic controller will be appropriately assessed at least once every 3 years or sooner if documented in the UCS.

ATC units will be able to show how they advise controllers about an upcoming expiry date of unit endorsements, a valid language proficiency endorsement and a current medical certificate and avoid that controllers exercise the privileges of the licence when the associated endorsements, the language proficiency endorsement and a medical certificate are no longer valid.

The approved ATC training organisation will only organise continuation training by means of a Unit Competence Scheme which is approved by the CA.

The ATC training organisation seeking approval of a Unit Competence Scheme will provide to the CA all the relevant evidence to demonstrate compliance with the appropriate articles of Commission Reg (EU) No 805 of 2011, specifically Annex II part C of that regulation and the requirements of this document.

The approved ATC training organisation must notify the CA of any proposed changes to the approved Unit Competence Scheme that affect the approval before any such change takes place, to enable the CA to determine continued compliance with the requirements of Commission Reg. (EU) No 805 of 2011 and the requirements of this document.

### **Continuation Training Requirements**

The continuation training has to fulfil the following criteria:

- Compliance with the requirements of the Commission Reg (EU) No 805 of 2011 and specifically Annex II part C of that regulation.
- Continuation training should consist of
  - Theoretical and practical courses, together with simulation, and will contain at least
    - Refresher training
    - Unusual situations / Emergency training
    - Linguistic training (if appropriate) and
  - Procedures to ensure that controllers satisfy the unit requirements relating to the maintenance of operational competence. These procedures will include requirements for controllers to at least:
    - complete a minimum specified number of controlling hours within a specified period on the sectors or operational positions for which they hold valid ratings; and
    - be subject to an assessment of their continuing competence by continuous assessment, by a dedicated competence check, or by a combination of both.

### **Continuation Training Details**

The continuation training will be conducted in accordance with a fully documented and up-to-date Unit Competence Scheme indicating:

- Title of the UCS;
- Document Identification, Signatures, Document Change Records;
- Identity of the UCS approving authority;
- Table of Contents;
- Introduction;
- Objectives and scope of the UCS;
- Relationship with other plans, schemes or documents;
- Definitions;
- General Provisions;
- Overall accountable manager for the continuation training;
- Audience (who will use the UCS);
- Staffing details
  - Competence level of the instructors and topics in the course to which the instructor will contribute, showing whether directed towards theoretical or practical training or a mixture of both
  - Roles and Responsibilities in respect of the course
- Structure of the continuation training;
- Training processes by which the training objectives for refresher training, emergency training, ... will be met;

- Minimum specified number of controlling hours within a specified period on the sectors or operational positions;
- Competence assessment process by which competence will be assessed;
- Procedures for candidates who fail to meet the continuation training criteria, including an internal appeal procedure;
- The methodology that enables controllers to maintain their competence;
- Adequacy of assessment methods in order to ensure that the performance objectives are met;
- Review Mechanism (Methods used to evaluate, review and maintain the quality and effectiveness of the UCS);
- Maintenance of records of all changes made to the UCS, either on a temporary or permanent basis, and the reasons for making them.

The Unit Competence Scheme will be submitted with ASD.F.217 '*ANSP UCS compliance tracking sheet*' for approval to the CA.

### **Controller Currency Requirements**

To maintain competence, controllers will be required to carry out a minimum amount of controlling time on each sector or operational position for which their ratings are valid. This minimum amount of controlling time on each sector will be proposed by the ANSP to the CA for approval.

The minimum number of hours that the controller has to exercise the privileges of the unit endorsement will be indicated in the approved UCS.

The minimum number of working hours, leaving aside instruction tasks, required to maintain the validity of the unit endorsement, may be reduced for on-the-job training instructors in proportion to the time spent instructing trainees on the working positions for which the extension is applied.

Units will have procedures to ensure that controllers exercise the privileges of their air traffic controller licence on each sector or operational position, for which their ratings are valid, for a minimum period of time during each watch or over a specified period. Watch rosters will enable controllers to meet the currency requirements. These procedures will be approved by the CA.

Air traffic control units must also have procedures to ensure that controllers returning from extended periods of planned or unexpected absence will be required to undergo a period of training under the supervision of an OJTI and be declared as competent to revalidate the endorsements.

Unit procedures to enable controllers to regain their currency will include requirements and guidance:

- to ensure that controllers who do not satisfy the minimum currency requirement do not provide an air traffic control service on the sector(s) or operational position(s) concerned, unless they are monitored by an OJTI who holds a valid rating appropriate to the air traffic service being provided
- detailing the operational responsibilities of the monitoring OJTI and the controller he is monitoring;

- to enable an OJTI to determine when the monitored controller no longer requires operational support
- to initiate a practical competence check by a dedicated operational competence assessor

These procedures will be approved by the CA.

### **Competence Assessment**

A competence assessment will mandatory be organised to monitor the controllers' competence in order to ensure they maintain their competence.

The competence assessment scheme should consist of a theoretical assessment and a practical assessment.

With the theoretical assessment, each Air Traffic Controller will demonstrate that he/she possesses sound and current knowledge of pertinent aspects relating to operational and systems procedures on the unit endorsements valid in their licence.

The practical assessment may be conducted by continuous assessment or a dedicated practical check, or a combination of both. The practical assessment will be conducted for all the operational positions indicated on the controller's current unit licence endorsement(s).

A controller who fails a competence assessment, or fails to renew his unit licence endorsement, may not provide the air traffic control service(s) associated with the unit licence endorsement.

He/she will be required to undergo a period of training under the supervision of an OJTI and be declared as competent following a successful unit licence endorsement examination.

Where the privilege to exercise a unit rating or endorsement is withdrawn he/she will undergo specific training as laid down under the UTP/UCS for this type of situation or where not documented an individual course approval will be sought from the CA.

The competence assessment scheme will at least contain the following details:

- Assessor selection procedure, qualification requirements and training plan
- Detailed assessor responsibilities
- Assessment process description (Who, What, When, How, What if)
- Assessment performance objectives
- Individual communication process (How to communicate assessment outcome?)
- Communication process to the management (How is management advised about outcome?)
- Communication process to CA (How is CA advised about negative outcome?)
- A limit to the total number of repetitive failed assessments
- Database document management procedure
- Competence assessment scheme review mechanism
- Record keeping system
- An appeal procedure to handle disputed assessments

The competence assessment scheme will be approved by the CA.

## **REFRESHER TRAINING**

Rating and unit endorsements will be kept valid through approved training, which will consist of training to maintain the employability of ATCOs, refresher courses, emergency training and, where appropriate, linguistic training.

This training will be given to all ATCOs every 12 months. Additional training may be provided at the request of individual controllers or when considered necessary.

The training will consist of theoretical and practical instructions, together with simulation and will include but not exclusive to:

- Maintenance of operational standards
- Maintenance of envelope of competencies related to the current ratings and rating endorsements
- Correction of adverse general tendencies
- Recognition and handling of emergency or unusual situations
- Failure of equipment and degraded systems
- Unusual operating configurations, e.g. reduced runway length operations, non-standard sector configurations, operations in adverse weather conditions
- Lessons Learned from incident examples
- Familiarization with developments and changes
- Phraseology refresher

The training course has to be compliant with the appropriate articles of Commission Reg (EU) No 805 of 2011, specifically Annex II part C of that regulation and the requirements of this document.

The course, the methodology and duration have to be appropriate in order to enable students to reach performance objectives. The training equipment has to be adequate for the proposed training.

Following course details have to be submitted to CA for approval:

- Title of the refresher course;
- Document Identification, Signatures, Document Change Records;
- Identity of the refresher course approving authority;
- Overall accountable manager for the refresher course;
- Introduction;
- Objectives and scope of the refresher course;
- Audience (who will participate and when);
- Proposed starting date of the course
- Duration of the course
- Number of courses planned
- Planned minimum and maximum number of students on the course
- Performance objectives of the course
- Timetable of lessons and practical exercises for the course, including details of any self-study arrangements or e-learning

- In the event of an assessment, the method by which the student's progress and ultimate success will be judged, including the provisions in case of failure.
- Staffing details
  - Competence level of the instructors and topics in the course to which the instructor will contribute, showing whether directed towards theoretical or practical training or a mixture of both
  - Responsibilities in respect of the course
- Methods used to evaluate, review and maintain the quality and effectiveness of the course

**Note** - When individual course approvals are given, the course can be added as an appendix to the Unit UTP/UCS with its individual approval letter attached. When the Unit resubmits its UTP/UCS for approval the course can be approved under the new UTP/UCS approval letter.

## **Part F: Approval of Development Training**

### **Rationale**

The objective of this chapter is to set out the requirements for approval of development training in accordance with Commission Reg (EU) No 805 of 2011.

### **General**

**Development Training** is training designed to provide additional knowledge and skills demanded by a change in job profile, e.g. new licence endorsement (OJTI) or any other career development like assessor, supervisor, safety manager, incident investigator, airspace developer, training manager, traffic flow manager, etc.

Although the ATC licence is issued for student ATCOs and ATCOs, recognising the specific role which they are playing in the safe provision of air traffic control, a number of other functions have as well a particular direct or indirect safety related contribution.

The regulation provides for an instructor endorsement for 'On the Job Training Instructors (OJTI) which indicates that the holder is competent to provide training and supervision at a working position for areas covered by a valid rating.

In addition the regulation allows the CA to approve licence holders to act as competence examiners or competence assessors for unit and continuation training.

Every individual request for a license endorsement has to be preceded by an approval for the training for that particular endorsement competence, being part of the development training.

The ATC training organisation will only organise the development training for competences when the development training plan is approved or at least provisionally approved by the CA.

The ATC training organisation seeking approval of development training will provide to the CA all the relevant evidence to demonstrate compliance with the requirements of the Commission Reg (EU) No 805 of 2011 and the requirements of this document.

The approved ATC training organisation must notify the CA of any proposed change that would affect the approval before any such change takes place, to enable the CA to determine continued compliance with the regulatory requirements.

### **Development Training for OJTI's**

Before operating as an OJT Instructor, an air traffic controller shall fulfill the minimum conditions of an OJTI development training program and any laid down ATS unit requirements where that instruction is to be carried out.

The OJTI development training has to fulfil the following criteria:

- Compliance with the requirements of Regulation (EC) No 1108/2009 and Commission Regulation (EU) No 805 of 2011.

### **OJTI Course Details**

The ATC training organisation seeking approval of OJTI development training courses will submit the following information in a fully documented and up-to-date Training Plan indicating:

- Title of the OJTI training course;
- Document Identification, Signatures, Document Change Records;
- Identity of the OJTI training course approving authority;
- Overall accountable manager for the OJTI training course;
- Introduction;
- Objectives and scope of the OJTI training course;
- Audience (who will participate and when);
- Proposed starting date of the course
- Duration of the course
- Number of courses planned
- Required minimum profile of the students
- Planned minimum and maximum number of students on the course
- Performance objectives of the course (including the responsibilities related to the OJTI role)
- Timetable of lessons and practical exercises for the course, including details of any self-study arrangements
- Assessment method by which the progress and ultimate success will be judged
- Staffing details
- Competence level of the instructors and topics in the course to which the instructor will contribute, showing whether directed towards theoretical or practical training or a mixture of both
- Responsibilities in respect of the course
- Record keeping system
- Methods used to evaluate, review and maintain the quality and effectiveness of the course
- Appeal process

### **Development Training Requirements for other safety related ATC functions**

Assessors and examiners are to be approved by the CA through Art 22 and 24 of Commission Regulation (EU) No 805 of 2011. Changes will be notified to the CA and are subject to prior CA approval.

The ATC training organisation will submit staffing details as follows:

- Name;
- Professional qualifications and experience;
- Training and assessment records in relation to instruction duties;
- Employment status (permanent or under contract);



Whenever ATC training organisations are required to provide training for any safety related ATC function the following requirements have to be fulfilled:

- Selection criteria
- Training program by which competence will be achieved, emphasizing the responsibilities related to their future role
- Assessment method
- Methods used to maintain and regain competence
- Arrangements and objectives for refresher training where required

ATC training organisations are encouraged to communicate the course details through the structure defined in the development training for OJTI's.

The development training program will be submitted for approval to the CA.

ATC training organisations are encouraged to develop and document the development training for ATC staff for all direct and indirect safety related functions according the proposed structure.

Following safety related functions are identified:

- Supervisor
- Traffic Director
- Traffic Manager
- Team leader
- ATM Expert
- Incident/Occurrence Investigator
- Safety Surveyor
- Safety Practitioner
- Competence Assessor
- Classroom Instructor
- Simulator Instructor
- Examiner
- Training Developer
- ATC simulator staff
- As risk assessed for any safety related function

## **PART G: Conduct of Courses**

The objective of this chapter is to set out the requirements for ATC training organisations, conducting courses for student ATCOs and ATCOs in accordance with Commission Reg (EU) No 805 of 2011 and allowing, as required, the CA to carry out random inspections to verify continuous compliance with the regulatory requirements and any terms and conditions under which certification was granted.

ATC training organisations will notify the CA at least 6 working weeks before the start of the course.

The course notification will include the details as outlined in Aeronautical Services Advisory Memorandum (ASAM) No. 33:

The ATC training organisations will organise courses following the approved training courses. Unavoidable variations of a minor nature or other significant events will be logged and retained in the course records.

Students do not learn at the same rate and do not have the same background. Where individual teaching times need to be changed due to these factors, provided the changes do not involve a significant change in the time normally spent on the subject, no notifications need to be made.

Modifications to lesson plans due to changes in legislation, the Manual of Air Traffic Services, or similar documents, are considered unavoidable and need only be logged in the master course design document.

The ATC training organisation will maintain records to show that each student has undertaken in full the approved course of training. Where a student has followed the approved course of training, a simple record of attendance will suffice. Where periods of absence have occurred, records must show how missed training was recovered.

The Students' progress will be monitored and assessed in accordance with the course assessment programme.

## **PART H: Assessments**

### **Rationale**

The objective of this chapter is to set out the requirements for assessments in accordance with Regulation (EC) No 1108/2009 and Commission Regulation (EU) No 805 of 2011.

### **General**

Assessment procedures should ensure that student and/or trainee ATCOs are kept aware of their progress on the course, including any areas where improvement is required and the goals that they must achieve to successfully complete the course.

Assessment is a process of gathering of evidence about the student/trainees' performance to determine how they are progressing with their training and to identify any shortcomings that need to be addressed. All the objectives of training or identified parts thereof must be assessed and the process fully documented to provide evidence of the trainees' performance.

Assessment of the trainee's development is an integral part of the training plan. The method of assessing and the assessment regime will need to be detailed in the training plans which are submitted for approval to the CA.

Assessment procedures should ensure that students or trainees are advised in due time about upcoming examinations or assessments and provided with the results of all their assessments.

CA may randomly attend assessments of students or trainees in order to verify the compliance to assessment procedures and standards.

### **Requirements for Assessments in Initial Training**

- Assessments will be conducted only by approved examiners or assessors.
- Objectives must be specified for each practical, written, verbal or other form of assessment. The student must be made aware of the areas to be assessed and the standards to be reached for each assessment.
- On each course or module of a course, periods of assessment will be formally defined.
- Practical assessments at intermediate points of a course are recommended in order to monitor the students' training progress.
- Students must be provided with the results of all their assessments.
- Assessment records will be stored.

### **Requirements for Assessments in transition Training and PRE-OJT**

- Trainees/students should be assessed at least at the end of transitional training and at the end of pre-OJT.
- Assessments will be conducted only by approved examiners or assessors.
- Failure to reach a satisfactory standard precludes progression to the next stage of training.

- Assessment at these phases may include written, verbal and practical assessments using simulation.
- These phases should also be used to confirm that the trainees have retained the knowledge and skills gained on the initial rating courses that they will be required to apply during OJT.
- Students must be provided with the results of all their assessments.
- Assessment records will be stored.

### **Requirements for Assessments in OJT**

- During OJT, the trainee should be assessed at intervals to ensure satisfactory progress is being made, to organize additional training and to set targets. Debriefing records will be kept.
- Trainees should be formally assessed at the end of each level of OJT for which training objectives have been identified. The assessments will be conducted only by approved assessors.
- For every formal assessment, a dedicated assessment report will be made.
- Students must be provided with the results of all their assessments.
- It is the responsibility of the authorized competence assessor, to determine and agree when the trainee has reached the level of knowledge and skill required of an operational controller.
- A student who does not achieve a satisfactory practical assessment has failed the training course.

### **Assessment Records**

- Reports of student/trainee performance during the day to day practical training sessions are known as '**formative reports**'. While these reports should contain the OJTI's comments on the student's performance and state whether or not he or she satisfied the training objectives, they are not graded. It is recommended that OJTI's should complete formative training reports on a regular basis, preferably for each training day undertaken.
- The trainee should be given a verbal debrief of his performance against the target level of achievement for the stage of training and it is useful to include a summary of this feedback as part of the written report. It is advisable to have the student/trainee sign the report as confirmation of having understood the comments, both from the training viewpoint and as potential evidence in the event of an appeal against an assessment.
- '**Summative assessments**' may be conducted at any stage of training where a more definitive measure of the student's progress is required, for example at the end of each level of training. They may be carried out by an assessor or an OJTI.
- During a summative assessment, the performance of the student/trainee will be marked and classified as either 'satisfactory' or 'not satisfactory' against the published training objectives for that level of training. Additional written formative comments should also be included where necessary, indicating areas of weakness where improvement is required.
- Students/trainees must be given prior warning of any summative assessments and should sign the resulting assessment report.
- It is important to make sure that the reports are formulated using the training plan objectives as a standard and should indicate the level of traffic the trainee handled during the practical session.

## **PART I: Appeals**

Any student/trainee who believes he/she has been disadvantaged by the conduct of an assessment or examination will have a right of appeal.

The training provider will establish and publish an internal appeal procedure for candidates who fail to meet the training criteria, to ensure fair treatment of candidates.

For training conducted under the Unit Training Plan (UTP) the training provider will establish and publish procedures for candidates who following an internal appeal wish to make a further appeal to the competent authority. The training provider shall notify the competent authority as soon as practicable whenever a student or trainee makes an internal appeal, when that appeal will be heard/decided upon and the outcome of that appeal by email to [ansd@iaa.ie](mailto:ansd@iaa.ie).

The training organisation shall inform the student/trainee during an internal appeal of their right to further appeal to the competent authority. The training organisation shall notify the competent authority without delay if a student or trainee will make an appeal to the competent authority by email to [ansd@iaa.ie](mailto:ansd@iaa.ie). They will include all relevant material used by them to reach their determination and will assist the competent authority in its review of the appeal.

The competent authority will acknowledge within 5 working days receipt of the appeal to both the training organisation and the individual student/trainee. All parties will then be informed of the competent authority's review process.

For all courses of training Students/trainees should be informed of the appeal procedure and of their right to appeal internally and externally if appropriate before undertaking the course. It is advised that students are issued with an individual copy of the appeal procedure and a signature taken as proof of receipt. It is also advisable to issue a code of conduct for some or all of the following groups/scenarios;

- Staff
- Students
- Contract workers
- OJT
- Assessments
- Appeals
- As determined.

## **PART J: Records**

In accordance with article 28 of Commission Reg (EU) No 805 of 2011 in regard to the CAs compliance monitoring and oversight activity and article 19 (e) in regard to record keeping, an ATC training organisation will retain the following records:

- ATC Training Organisation Exposition (master copy) – to be retained permanently.
- ATC Training Course Documents (master copies) – to be retained permanently.
- Changes to approved training plans – to be retained for a period of 5 years after the changes have taken place.
- Assessments and Examinations – criteria for assessment and examinations. These records will be retained for a determined period.
- Staff – qualification, training, competence assessment, operational refresher/familiarisation, etc. – to be retained permanently.
- Training and assessment records, as follows:
  - list of course managers, instructors and assessment staff for each course;
  - written assessment question papers;
  - written student answer papers;
  - verbal assessment reports including questions asked and records of student responses;
  - practical formative reports;
  - practical summative reports;
  - practical assessment reports;
  - course results sheet with final assessment for each student;
  - course log detailing changes made to the course conduct and any significant events affecting the running of the course;
  - attendance records and any course programme changes to accommodate student absence;

These records are to be retained for 2 years following the completion of a course.

- Students and Trainees ATCOs for initial, unit, continuation and development training – participation, progress, assessments, examinations, training results, These records will be retained for a determined period.
- Records of internal and external audits – to be retained permanently.

## **PART K: Assessment for Previous Competence**

### **Rationale**

The objective of this chapter is to set out the detailed requirements for assessments in accordance with Art 10 (2) and 11 (4) of the the Commission Reg (EU) No 805 of 2011.

### **Requirements**

The holder of a rating or rating endorsement who has not been providing air traffic control services associated with that rating or rating endorsement for four consecutive years may only commence unit training in that rating or rating endorsement after appropriate assessment as to whether the person continues to satisfy the conditions of that rating or rating endorsement, and after satisfying any training requirements that result from this assessment.

Air traffic service providers must have procedures to ensure that controllers who have not exercised the privileges of a particular rating or rating endorsement for a period of more than four years do not commence unit training in that rating or rating endorsement unless they have undertaken and successfully completed an assessment for previous competence in that rating and rating endorsement;

Approved ATC training organisations offering approved courses of training and wishing to assess candidates for previous competence are required to submit their proposals to the CA for prior approval.

The level of competence, against which the controller is assessed, is that required for successful completion of an approved course of initial training. The assessment will be arranged in such a way that all sub-topics featured in the course are adequately covered.

A submission to assess for previous competence must include the details of the assessments to be used, the assessors who will conduct the assessments and the assessment date/period in order to allow the CA to execute its oversight activities.

Following the Assessment for Previous Competence (APC), the controller will be required to satisfactorily complete any training to satisfy deficiencies in his knowledge, skill or competence identified by the APC, and undertake any further assessments required.

A report of the assessment showing the areas covered and the results of the assessment will be submitted to the CA within 2 weeks following the assessment. When the assessor has established the requirement for further tuition, the report will contain recommendations for the nature of the course of instruction and the assessment required.

Records will be kept within the individuals' personal file for an undetermined period.

## **PART L: Criteria for Use of Simulators**

### **Rationale**

The objective of this chapter is to set out the requirements for the use of simulators in requiring ATC Training Organisations have available the necessary facilities, equipment and accommodation appropriate for the type of training offered;

### **Requirements**

The simulator will be reviewed by the CA as part of the TO approval process for any particular training. The acceptance will be required, even if the ATC Training Organisation makes use of simulators of other training organisations.

The ATC Training Organisation is required to list: the amount; types; and locations of the under listed simulator device types (with fidelity levels if known) that they use.

The following four types of simulation devices are:

1. High-fidelity Simulator (HI FI SIM).
2. Simulator (SIM)
3. Part-Task Trainer (PTT).
4. Other Training Device (OTD).

All training plans are required to indicate the amount of training, if any, that will be conducted on a simulator.

As a general rule, the simulator will be accepted for the particular training plan on the basis of its ability to adequately support the plan's training objectives and assessment requirements.

The acceptance of the use of a simulator and the part of the particular training plan for which the provider proposes to use it, will be based on an assessment against the following criteria:

- General environment. This should provide an environment in which simulator exercises may be run without undue interference from unrelated activities;
- Simulator layout;
- Equipment provided;
- Display presentation, functionality, and updating of operational information;
- Data displays, including strip displays, where appropriate;
- Co-ordination facilities;
- Aircraft performance characteristics, including the availability of manoeuvres, e.g., holding or ILS operation, required for a particular simulation;
- Ability of the simulated environment to enable students/trainees to meet the stated objectives of the practical training exercises;
- Ability of the simulator and its exercises to enable the performance objectives to be assessed to the level determined in the training programme;



- Degree of realism (As a general principle, the greater the degree of replication of the operational position being represented, the greater the use that will be possible in any particular training plan.)
- Where a simulator is an integral part of an operational ATC system, the processes by which the provider is assured that interference between the simulated and operational environments is prevented.
- Processes by which the provider can be assured that staff associated with the conduct of the simulation are competent;
- Reliability of the simulators (As a general principle, the availability of adequate maintenance contracts of the specialised practical facilities or back-up systems in order to remedy important or recurrent non-availabilities of the specialised practical facilities).

END